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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
APPIAH, CHARLES NANA	
ART UNIT	**PAPER NUMBER**
2686	

DATE MAILED: 09/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/663,265	GANDHI ET AL.	
	Examiner	Art Unit	
	Charles N. Appiah	2686	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *26 November 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *7 and 9-14* is/are allowed.

6)☒ Claim(s) *1-6,8 and 13-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-6, 8 and 13-16 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 1-4, 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over **I et al. (5,734,646) in view of Amirijoo et al. (6,728,217).**

Regarding claim 1, I discloses a method for determining when a request for higher transmission rate should be granted to a mobile station that has access to a communication system comprising the steps of: calculating a first indicator using a second indicator for all active connections (mobile periodically measures the pilot strength on its neighbor list, col. 6, lines 60-64, mobile providing pilot strength measurements with the access request, col. 7, lines 32-51 and col. 12, lines 6-12), establishing a blocking threshold (host's load condition being too close to a predetermined load level, col. 8, lines 35-49), deciding whether to grant or deny the mobile station access to use the requested higher transmission rate based on the first indicator relative to the blocking threshold (steps 600, 601, 607, 607, 609 and 605 of Fig. 6, col. 8, line 50 to col. 9, line 12). I fail to explicitly teach tracking the calculated

indicator for a mobile station granted access to use the requested higher transmission rate.

In an analogous field of endeavor, Amirijoo discloses a system and method for modifying the data rate for data calls in a cellular telecommunication network by dynamically changing the air interface data rate for transparent and non-transparent data services (see col. 2, lines 24-28). According to Amirijoo, as the quality of a higher data rate radio link deteriorates below a specified upper quality threshold, a change of channel coding to a lower rate is ordered by the network (see col. 2, lines 28-35), wherein during a data call, both the MS and BTS perform signal strength and quality (BER) measurements on the radio link between the MS and the BTS, indicating the tracking of a calculated indicator (signal strength or quality), which measurement is sent to the BSC for analysis (see col. 4, lines 19-43 and col. 5, lines 15-67).

It would therefore have been obvious to one of ordinary skill in the art to incorporate the above the above teaching of Amirijoo into I's system in order to improve the quality of data calls by performing radio link quality measurements in a dynamic manner as taught by Amirijoo.

Regarding claim 2, I further teach wherein the first and second indicators contain current loading and interference values (see col. 5, lines 3-37, col. 6, lines 45-59 and col. 8, lines 35-63).

Regarding claim 3, I meets wherein the first and second indicators also contain changes in loading and interference values due to connections being dropped or added

prior to burst start time (inherent feature of load and interference situation being time varying, col. 9, lines 4-13).

Regarding claim 4, I shows wherein the deciding step comprises denying access at the requested higher transmission rate to the mobile station when the first indicator exceeds the blocking threshold value to avoid degradation of performance of the wireless communication system (mobile sent a retry command if the host's load condition is too close to the predetermined load level, col. 8, lines 35-41).

Regarding claim 6, I further shows wherein the deciding step comprises granting access to the mobile station to use the requested higher transmission rate when the first indicator is less than or equal to the blocking threshold (see steps 601 through 607, 609 and 605).

Regarding claim 8, I's step 600, Fig. 6, in which the host's load condition is compared to a predetermined load level (see col. 8, lines 35-40) meets the step of establishing a threshold which inherently reads on the established threshold being defined by a maximum blocking threshold wherein the maximum blocking threshold is set at a value which will prevent overloading of the communication system, since the data burst request is never granted when the host cell load condition is not OK.

3. Claims 5 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over **I et al and Amirijoo et al** as applied to claims 1, 3 and 8 above, and further in view of **Salonaho et al. (6,317,600).**

Regarding claim 5, I and Amirijoo fail to explicitly teach wherein the deciding step grants the mobile station access to use a transmission rate that is lower than the requested rate when access at the requested rate is denied.

Salonaho discloses a method for load control in a radio communication system which include the feature of denying access for new connections as well as reducing cell load by decreasing data transmission rate when a cell load substantially exceeds a threshold value (see col. 6, lines 1-35), suggesting the capability of granting access to the use of a transmission rate that is lower than a requested rate when access at a requested rate is denied.

It would therefore have been obvious to one of ordinary skill in the art to provide for the granting of a lower transmission rate to a requesting user in the system of I and Amirijoo in order to control system loading and maintain good quality communications as taught by Salonaho.

Regarding claim 13, I and Amirijoo fail to teach wherein the maximum blocking threshold is constant for different estimate loading values.

Salonaho shows a variable threshold load value as the data transmission rate varies with the load (see col. 6, lines 26-34) suggesting different thresholds for different load values.

It would therefore have been obvious to one of ordinary skill in the art to provide for the use of variable threshold for different load values to the system of I and Amirijoo in order to provide a dynamic optimal load control to improve connection quality while enabling desired transmission data rates.

4. Claims 14, 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over **I et al** and **Amirijoo et al** as applied to claim 8 above, and further in view of **Kotzin et al. (5,796,722).**

Regarding claims 14-16, I and Amirijoo fail to teach wherein the maximum blocking loading decreases in steps or uniformly as the loading increases.

Kotzin discloses a method for dynamic load balancing in a multi-carrier wireless communication system using handoff (see col. 3, lines 16-54). According to Kotzin, a fixed threshold value may used or alternatively the threshold may be variable depending on the system configuration and that, in communication systems, where there are periods of heavy call traffic, it may prove beneficial to use a variable threshold that would accommodate more subscribers at an albeit lower grade of service (see col. 4, lines 21-64).

It would therefore have been obvious to one of ordinary skill in the art to combine the above teaching of Kotzin by providing a variable threshold that varies as desired in the system of I and Amirijoo in order to account for the dynamic nature of users including accommodating more users or subscribers at lower service grades as taught by Kotzin.

Allowable Subject Matter

5. Claims 7 and 9-12 allowed.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Gardner et al. (5,857,147) discloses a method and apparatus for controlling the transmission data rates for communications to and from a base station and a plurality of remote users.

Marchetto et al. (5,914,959) discloses a method in a variable-rate communication system that automatically compensates for inadequate signal quality.

Ejzak et al. (6,069,883) discloses a system for providing enhanced load and interference-based assignment of resources to users.

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles N. Appiah whose telephone number is 571 272-7904. The examiner can normally be reached on M-F 7:30AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha Banks-Harold can be reached on 571 272-7905. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CA

CHARLES APPIAH
PRIMARY EXAMINER